



The Transportation Services Division Responsibilities

Transportation Planning
Transportation Engineering and Design
Maintain the Street System Network
Respond to Citizen Requests and Needs
Operate and Maintain Traffic Control Devices
Inspect and Maintain Bridges
24-7 On-Call Response to Emergencies
Conduct Safety Analyses and Implement Improvements
Traffic Engineering Development Review
Construction Management and Inspections
Manage the Public Right-of-Way
Process Street Vacations
Collect Traffic Data
Coordinate with Transit Providers
Coordinate with other Jurisdictions
Participate on Regional and Sub-regional Transportation Committees
Prepare Grant Applications for Projects

A message from the Manager of Transportation Services

The Transportation Services Division of the Planning, Building, and Public Works Department works extremely hard to provide a safe, efficient, and dependable transportation system for the citizens of Des Moines. Our transportation system includes streets and highways, bridges, sidewalks, bike lanes and paths, HOV lanes and transit, traffic control devices including signs, signals, pavement markings, guardrails, and other similar devices.

Our community faces very difficult transportation challenges in the years to come. Our City's infrastructure, including our pavement, bridges, and traffic signal equipment, is aging rapidly. We continually attract a large amount of commuter based traffic traveling through our community. In the next few years, we will have to face the potential for passenger only ferry service, implement Bus Rapid Transit including transit signal priority on Pacific Highway South, and even the likelihood that eventually the extension of link light rail from the Airport to Tacoma will come right through this City. Working closely with neighboring cities, state and regional agencies, and transit providers is crucial to efficiently construct and plan for the South Access to the Airport and the future extension of SR 509.

Recently, extreme weather conditions have had a massive impact on our transportation system. Landslides and essential bridge repairs have eroded the City's Transportation budgets.

My staff and our street maintenance crew work diligently to provide impeccable services to the citizens of this community. Delivering projects on time and on budget is a top priority for us. We are constantly looking for new, more cost effective ways of doing business. We know that the citizens of this community have entrusted their hard earned tax dollars to us, and they demand that we invest these funds into improvements wisely and efficiently.

This report is devoted to highlighting the work that we do on a regular basis, and pointing out recent accomplishments. We are proud of our accomplishments, some of which are highlighted in this report. We look forward to serving you next year, and into the future.

If you have any questions about the work that we do, please feel free to stop by and say hi. My door is always open, and I would be happy to talk about my approach to Transportation System Management for this community.

Sincerely,

Dan Brewer
Assistant Director



Our Team

Dan Brewer, P.E. is the Assistant Planning, Building, and Public Works Director for the City of Des Moines, and he is responsible for Management of the Transportation Services Division. Dan graduated in 1991 from the University of Washington with a Bachelor of Science Degree in Civil Engineering, with emphasis in Transportation and Construction Engineering. He has over 15 years of experience in associated areas of planning, development review, design, operations and maintenance, and project management.

Brandon Carver, P.E., P.T.O.E., is the Associate Transportation Engineer and an expert in traffic engineering and operations. His background in transportation provides effective, efficient solutions to the traffic and transportation issues affecting the City including the implementation of projects, such as the traffic rerouting of 8th Avenue South, that are subject to controversy but are beneficial for our community.

Amy Swartz is a 1993 graduate of Civil Engineering and Economics from Florida State University where she focused on natural resource utilization. Amy's duties include: development review, grant writing, public and developer interaction, reporting, preparing cost estimates and assisting with budget preparation. Amy has worked on light rail system implementation and environmental abatement in New York, Texas, Louisiana, Illinois, Hawaii, Alaska and Missouri before moving to Washington. Amy lives in Des Moines and is the Display Processor Lead for the Emergency Preparedness team for the City.



Transportation Engineering Services Staff

Daniel J. Brewer, P.E., Assistant Planning, Building, and Public Works Director
R. Brandon Carver, P.E., P.T.O.E., Associate Transportation Engineer
Amy Swartz, Civil Engineer 1
Dave Maresh, Right-of-Way and Construction Inspector
Ken Thomas, Traffic Engineering Technician
Thomas Owen, Transportation Engineering Technician
Len Madsen, 16th Avenue South Project Manager
Scott Romano, Capital Project Manager

Street Maintenance Services Staff

Frank Olson, Maintenance Superintendent
John Cozart, Street Maintenance Lead
Norm Russell
Jerry Nettles
Anthony Jones

Vacant Positions – Unfunded

Maintenance Office Administrative Assistant
Maintenance Worker
Seasonal Staff (6)
Traffic Control Specialist

Staff that go the extra mile!

*Dear Traffic Department
City of Des Moines*

I had such a nice experience a couple of weeks ago when I was hopelessly lost in your city! A city of Des Moines car (Ken Thomas) pulled alongside my own and I said "I was lost". He said he was with the traffic department and could pretty well tell (when someone is lost). He asked what I was looking for (the Stafford Health Center) and he said to follow him. I would never have found it and so appreciated the escort! Thank you!

*Lucille Oshun
Normandy Park*



Dave Maresh is the Right-of-Way and Construction Engineering Inspector. His duties include the review, processing, inspection, and tracking of all work within the City's right-of-way. He has worked for the City of Des Moines since 1984. Over the years he has maintained good working relationships with contractors, developers, utility providers and property owners. He has taken several courses from the Washington State Department of Transportation (WSDOT) and King County. Dave is a Certified Traffic Control Supervisor through the Evergreen Safety Council.



Ken Thomas is the City's Traffic Technician. His duties include collecting traffic counts and collision data, preparing CAD drawings for all transportation functions including the new street standards, intersection studies, the guardrail program, and addressing citizen concerns. As a 20 year veteran, he has interpreted aerial photography; calculated scale, area, speed, and height, using photogrammetry; and created maps. He has two associates in Technical Illustration and Computer Aided Drafting, and he has taken other training courses in Drainage Inspection, Fundamentals of Traffic Engineering, Illumination and Signals Construction Inspection, Geometric Roadway Design, and AutoCad Map.



Thomas Owen graduated from the University of Portland in 2008 with a Bachelor of Science in Engineering Management emphasizing in Civil Engineering and Transportation. He has completed a Pavement Condition Rating Workshop as well as a Transportation Improvement Board application training session. He will soon be testing for a certificate as an Engineer-in-Training, a prerequisite to obtaining a Professional Engineering License. Tommy is currently a temporary employee with the City. We plan to convert his position to full time in 2009 so that he can assist in the design and construction of our Capital Improvements.

The Street Maintenance Crew



Left to right: Anthony, Jerry, Norm, Frank. John Cozart is not in the Photo.

Stewards of the Transportation System

Maintaining the City's Investments

The City's transportation facilities - bridges, roadways, traffic signals, traffic signs, sidewalks, trails and pathways - all need to be regularly maintained to protect our infrastructure investments. The following work is the responsibility of our staff.

City Bridges are Regularly Inspected

The City owns and maintains three bridges. The Saltwater Park Bridge on Marine View Drive South, and the Twin Bridges on 16th Avenue South. State and Federal regulations require that our bridges be routinely inspected and regularly maintained. The Saltwater Park Bridge, constructed in 1934, must have a detailed inspection every two years, and is now required to have a specialized inspection on key components every year. The North and South Twin Bridges must have a routine inspection done every two years, and a more detailed inspection every four years. The inspection schedules have been coordinated so that some inspections are occurring every year. This makes budgeting for this effort more efficient.

Significant Deterioration at the Saltwater Park Bridge

During a recent inspection of the Saltwater Park Bridge, some troubling deterioration was discovered. The bridge inspection reported that the expansion joint connections in the superstructure have deteriorated. These connections consist of a concrete catch-block, and pin and hanger system that support the superstructure's vertical and laterals loads. Deterioration observed at the connections includes cracking in the concrete catcher blocks, pack rust behind the steel hanger plates connecting the pins and the catcher block sliding-surface, and rust that has locked the pins to the steel hanger plates.

Most significantly, staff have identified a bending in the hanger plates that carry the vertical load in the suspended sections of the bridge. These hanger plates consist of 1 inch thick steel plates. A deformation of 1/4 inch was noted in 2005. In 2007, the deformation had increased to 5/16 inch. While the source of the bending has not yet been identified, the significance is certainly a cause for concern.

There are two hangers at each connection, which are coupled together by large steel pins. These pins allow for some movement in the suspended section of the bridge. As you can see from the photo, there is significant rust at each of the pins. If the expansion joints "lock-up" and do not provide longitudinal expansion and contraction release, the expected bending forces in the suspended span of the bridge will increase, potentially overstressing the girders in the suspended section.

The connection detail is now set up on an annual inspection to monitor the conditions. The last inspection was conducted during July 2008, and the results are still pending.

The solution is to eliminate this type of connection detail. Transportation engineering staff are currently working with bridge engineers from KPFF Consulting Engineers to develop possible solutions for eliminating this feature at some point in the near future. We are hopeful that this bridge will be eligible for some Federal Bridge Rehabilitation Funds in 2010.



Dan Brewer is preparing to enter the bucket of the Under Bridge Inspection Truck with Timothy Lane, King County Bridge Engineer, to conduct an inspection of the Saltwater Park Bridge.



A large concrete spall is removed from the catcher block connection detail underneath the Saltwater Park Bridge. You can't tell from this photo, but this worker is standing in the basket of the Under Bridge Inspection Truck, and it is **150 feet straight down**.



This complicated connection of the suspended section of the bridge is showing advanced signs of deterioration.

Void Discovered under Footing of North Twin Bridge

North Twin Bridge



Transportation Engineering Staff survey the footing area of the North Twin Bridge. The large void was directly under the west column of the bridge.

During some geotechnical inspection work associated with a seismic retrofit study project, it was discovered that about 25% of the spread footing supporting the North Twin Bridge over McSorley Creek was undermined and a large cavity existed under the west column. The bridge was immediately closed.

The Transportation Services Division worked quickly to make immediate shoring repairs in order to prevent structural damage to the bridge. Construction activity was troublesome given that access to the underside of the bridge was extremely difficult with the steep terrain and the proximity of McSorley Creek.

The good news is that a temporary repair to secure the spread footing allowed for the reopening of the bridge, which carries over 11,000 vehicles per day. One of the conditions for reopening the bridge with the temporary repairs was the posting of a 10 ton weight restriction until the permanent repairs can be made. Staff worked diligently to notify all impacted services.

The bad news is that this is only a temporary repair, and permanent repairs will be required. Design of the permanent repairs is underway, and construction is anticipated to begin in 2009. The cost of the permanent repairs are estimated at nearly \$1 million. The staff is hopeful that we will receive a grant for the necessary repairs.

Saltwater Park Bridge

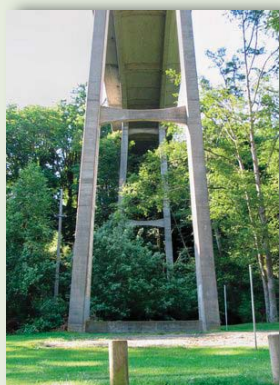


Photo by Dwalker1047.

"This is a photo I took of the most amazing place where I live. It is a very small, secluded state park on the Sound. I was so captivated by the symmetrical aspects of this bridge, (underneath it where the park is), that I went back and snapped this photo."

Bridges in Des Moines Get Ready for the Big Earthquake

Two of the three bridges that the City maintains are in need of seismic retrofits and upgrades. The South Twin Bridge on 16th Avenue South is the only bridge that has had seismic enhancements made. The North Twin Bridge and the Saltwater Park Bridge need strengthening to withstand a large seismic event.

The City has begun the process of evaluating several alternatives for upgrades, and preliminary engineering work has begun. The overall objective of the conceptual design phase will be to determine the most efficient seismic retrofit and expansion joint upgrade alternatives including analysis results, retrofit recommendations, connection detail/expansion joint rehabilitation recommendations, and the corresponding costs. This work effort will also identify the preferred design alternatives for each bridge, the associated costs, and will serve as the basis for final design efforts to follow in subsequent budget years.

Always On-Call for the Community

The City's Transportation Services Division prides itself in our ability to respond to emergency situations. When it matters most, our citizens can count on us to respond quickly – at all hours of the day or night, on weekends and on holidays.

Quick Action Saves Des Moines Memorial Drive

During a heavy rain storm this last winter, the already soaked hillside on Des Moines Memorial Drive near the Flag Triangle began to show signs of failure. This landslide posed an immediate threat to the roadway and the citizens using that facility. The Transportation Services Division staff moved quickly to close the roadway. Within hours of the closure a contractor was on site, and mobilizing equipment and materials to secure the hillside.



This huge landslide on Des Moines Memorial Drive required a quick response, and the Transportation Services Division delivered. A contractor was on site within hours, and work began immediately to secure the roadway and utilities that were threatened. When the repair was completed, over **7 million pounds** of rock had been placed on the hillside.

SNOW AND ICE OPERATIONS

Public Works crews respond on notice of snow and ice concerns in case of heavy snow fall or black ice conditions. Crewmembers close steep hills and streets that have a history of slick conditions. Plowing and sand applications follow a list of main arterials, school feeder roads, Metro Bus Routes, and finally residential streets. The amount of snow or ice is the deciding factor in how soon residential areas are serviced. Sometimes main arterials and streets require repeated plowing or sanding. During snow and ice events, Public Works crews are out very early in the morning or late at night to provide the safest possible driving conditions for its citizens, the commuting public, and emergency vehicles that use our City's streets.



Public Works Crews sanding roadways at Redondo.

**The Transportation
Services Division
responds 24-7-365**

Landslides

Between January 2006 and January 2007, there were six major landslides in Des Moines. Costs to repair exceeded \$4.5 million.

Emergency Response



This photo was taken during the installation of the road closure at the Saltwater Park Bridge. The Public Works Crew members and engineering staff worked into the night to make sure that the detour route was established for the morning commute.

Public Safety



Ken Thomas oversees work to secure a landslide, and divert runoff from flowing into the slide area.

Adding to the Transportation Network



The key responsibilities of the Transportation Services Division are to manage the construction of projects that improve the system, maintain the transportation facilities that the City owns, identify facilities that will be needed in the near future, and secure funding for all of the above. Our engineers manage these projects to assure that the City gets quality work delivered on budget and on time.

16th Avenue South Improvement Project

The Transportation Services Division delivered this multi-million dollar project ahead of schedule and under budget.

The arterial, formerly a two-lane road with ditches, is now a pedestrian-

oriented street including sidewalks on both sides of the street with curbs, gutter, an underground drainage system, improved signals and a school crossing, landscaped medians and planters. The street includes bike lanes and left turn lanes. Utilities have been upgraded to minimize future disruptions.

State, regional and local officials celebrated the completion of the 16th Avenue South Improvement Project at a ribbon cutting held at the Woodmont Elementary School crossing on June 23, 2008.



Left to right: Ken Kase, General Manager, Midway Sewer District; Mayor Bob Sheckler, City of Des Moines; Jeanne Burbidge, Washington State Transportation Improvement Board Chair and Federal Way City Council Member; Councilmember Dave Kaplan, Chairman, City of Des Moines Public Safety and Transportation Committee; Grant Fredricks, Planning, Building & Public Works Director, City of Des Moines; Tony Piaseki, City Manager, City of Des Moines.

South 216th Street Road and Sidewalk Improvements - 11th Avenue South to Marine View Drive

The Transportation Services Division is working on the design phase of the South 216th Street

Sidewalk Project between Marine View Drive South and 11th Avenue South, which will provide for sidewalks and bicycle lanes on both sides of the street and a two-way left-turn lane to assist turning movements to and from adjacent driveways and streets. These improvements will provide pedestrians, including many elderly and disabled citizens in the area, a safer access route between their homes, businesses and public transportation facilities throughout the Marine View Drive and South 216th Street corridors. Access to facilities such as the Wesley Homes Retirement Homes, Senior Activity Center, public library, and government offices located on 11th Avenue South will be significantly improved.

The City is currently seeking construction funding for this project, and we hope to be able to begin building the project in the summer of 2010.

Maintaining the System

One of the Des Moines Shoreline Jewels is Tarnished

The Redondo Boardwalk is used by hundreds of pedestrians each day, and is one of only a few shoreline pedestrian facilities on the Puget Sound. This is a vital amenity that is used by thousands of pedestrians each year.

The Redondo Boardwalk consists of wood decking that is cantilevered over the shoreline. The decking is supported by brackets that are attached to the sea-wall and by round pilings embedded into the seashore. There also are H piles embedded into the seashore that support the sea wall, which supports Redondo Beach Drive. The piles are protected against corrosion by a galvanic cathodic protection (CP) system, which consists of aluminum anodes buried adjacent to each of the piles. Additional protection for the piles is provided by an abrasion resistant epoxy coating. The brackets supporting the boardwalk are protected with galvanizing.

A recent inspection revealed that the CP system is working properly. However, the piles have lost some of the protective epoxy coating. The galvanized brackets and corresponding galvanized hardware have large areas of corrosion where the galvanizing has been consumed. A small pilot project to replace a couple of the brackets is currently underway. The new brackets will be monitored to see if the new coating is effective. Staff will need to continue to look at options in the coming year and develop an approach to solving this problem.

Roadside Safety Improvements Made on Cliff Avenue South

The annual guardrail program was initiated in 2007. This program is specifically intended to target roadside safety on the City's street system. This program identifies and prioritizes guardrail candidate locations. These locations are where guardrail is warranted as determined by the American Association of State Highway and Transportation Officials (AASHTO - Roadside Design Guide). But for those locations where none exists or where the existing guardrail does not meet current design standards, they should be upgraded to enhance safety. Vehicle impact with substandard guardrail installations can potentially increase the severity of the collision. This program is anticipated to last six to eight years. At the end of this time frame, the City's guardrail system should be consistent with current design standards.

Recently, Ken Thomas worked closely with the King County Road Services Division to design, and construct guardrail improvements on Cliff Avenue South. Ken also worked closely with the neighboring property owners during the installation to minimize disruptions.

Old



New



The previous guardrail system was outdated, and in desperate need of replacement to reduce the severity of potential collisions. The new guardrail system was installed by Peterson Brothers under a King County Contract, reducing the City's costs.

The Redondo Boardwalk



Corrosion is occurring on the pilings and brackets that support the Redondo Boardwalk.



Crews provide traffic control for road work.

City Launches Pilot Project to Control Fugitive Dust



Vegetation control enhances sight distances.



Removing Overhanging Branches to Improve Safety



Here Jerry Nettles is picking up trash to keep the community looking nice.

Currently there are approximately 50 gravel/unpaved sections of roadway in the City of Des Moines that are within public right-of-way. During summer months when there isn't much precipitation, we receive more calls for service on these types of roadways to mitigate dust concerns. Although the City does apply water to gravel roadways as time and resources allow, the effectiveness of applying water is minimal as the added moisture quickly evaporates in warmer weather. In years past, it was common practice to spread heavy oil-based products over gravel roads to control dust, but that treatment has been eliminated due to negative environmental impacts.

The City worked closely with the Puget Sound Clean Air Agency this summer to mitigate and reduce fugitive dust concerns on gravel roads. The Public Works Street Crew applied larger rock to a section of roadway and will monitor the location to see if the new materials will help reduce fugitive dust concerns.



John Cozart is grading a gravel street with larger road rock. He will monitor the application and determine its effectiveness in reducing fugitive dust.

Gravel Streets: What Can Property Owners Do?

We often get requests to pave gravel streets. Unfortunately, the current funding level for the Pavement Management Program is extremely limited, and in recent history there have been insufficient funds available annually to provide appropriate levels of maintenance to the City's streets. Until the City is in a financial position to provide adequate maintenance on its existing paved roads, funds from the Pavement Management Program should not be used for paving gravel streets.

If homeowners would like to pave their gravel streets there are two mechanisms available. One option is through a Local Improvement District (LID) process. Another option is a right-of-way permit process. With LID's, the City manages the project including: design, bidding, construction, inspection, administration, accounting and billing. The LID is used when the right-of-way improvements are extensive and complicated to construct and is also more time consuming and expensive for the assessed homeowners. In most cases the right-of-way permit process can be used by citizens or homeowners associations to pave their gravel streets. It requires a simple plan view drawing that has details of the limits of the proposed work attached to a City right-of-way permit. The City will provide a free right-of-way permit but there is a small fee for inspection. The City also provides specifications for the road preparation.

Maintaining the System

Pavement Management Program

The street system is the City's most expensive asset, and it must be appropriately maintained. Transportation Services Division staff are continually exploring ways to maximize the City's precious resources.

The City's Comprehensive Transportation Plan has identified the Pavement Management Program as a high priority. A major component of this program is the yearly pavement maintenance and rehabilitation projects. These projects are intended to protect and preserve the surface condition, help maintain the structural integrity, and restore texture and skid resistance to the roadway surface. With proper maintenance, asphalt pavement should last 20 to 25 years. With approximately 100 miles of roadway within the City of Des Moines the pavement management program must aim to maintain at least four to five centerline miles of roadway each year to avoid falling further behind.

Making Every \$\$\$ Count

All City streets are regularly rated by engineering staff to determine the pavement condition. The pavement condition survey is one of the most important steps in implementing a comprehensive Pavement Management System. Such a system involves dividing the pavement network into logical segments, recording descriptive segment inventory data, and collecting pavement performance information relating to these segments. These processes provide the critical information needed for analysis to determine maintenance and rehabilitation requirements, conduct long-term planning, and, most important, to establish priorities and **maximize limited financial resources**.

Street Maintenance Activities Include:

Pavement Maintenance (including filling potholes, crack sealing, patching, chip seals, and overlays)
Shoulder and Gravel Road Grading
Snow and Ice Removal
Vegetation Control
Trash pickup
Repair of Guardrails, Railing, and Fences
Upkeep of Streetscapes
Repair and upkeep of Curbs, gutters, and Sidewalks
Graffiti Removal
Traffic Maintenance
Traffic Signs
Traffic Signals
Street Lighting
Pavement Markings
Striping and Painting
Raised Pavement Markers

Cost Reduction Strategies

- Seek out Partnership Opportunities with other agencies or utilities on projects.
- Use City Staff for design and construction inspection.
- Strive to complete design work during the fall, and advertise for construction bids early in the year (January or February) when bids are more competitive and usually lower.
- Use Seasonal Staff or Contract Maintenance to implement preventative maintenance activities.
- Develop alternate bid sets so we can take advantage of favorable bids. (In other words, bid set A would include the projects we think we can afford based on our estimates, and alternate bid set B would include other projects that we would do if we received bids below our estimate. This requires design of a multi year program – which will be one of our recommendations for next year's CIP.)

Overlay Work on Des Moines Memorial Drive



City Saves Thousands

The Transportation Services Division staff are continually exploring ways to maximize the City's resources. One of the strategies to reducing costs is to use City staff to prepare our own designs and conduct construction management and inspections, rather than using consultants.

After securing trained staff in 2008, we did just that during the fall of 2008 for the overlay project on Des Moines Memorial Drive. The City's Transportation Engineering staff provided construction management and inspection services on this project **saving the tax payers over \$10,000.**

In 2009 look for Tommy Owen to prepare design plans, specifications, and an engineering estimate for the 2010 pavement management program, which will save the City over \$100,000.



Here, Tommy Owen is seen working with the Paving Contractor during shoulder restoration work on Des Moines Memorial Drive.

We Need Your Help

We ask citizens to be on the lookout for people hanging around in these types of areas that might be carrying spray paint cans, brushes, etc. If you see suspicious behavior, please call 911 and furnish as much descriptive information as possible. It's your tax dollars that are being wasted. It will take a community effort to stop this behavior.

Graffiti "Tagging" of Infrastructure Costs the Tax Payers

Graffiti tagging continues to be an on-going problem. Traffic signs, culverts, walls, fences, bridge abutments and sidewalks often become targets for this unsightly vandalism. City crewmembers have to take time from their regular duties to remove these markings, which is very time consuming. In addition to labor costs, there is the cost of paint, different types of solvents - depending on the surface, and in some cases, even complete replacement of the vandalized City property.

Managing the Right-of-Way

Inspections ---- What's the Big Deal?

Developers, contractors, utility purveyors, and others are required to apply for and have an approved right-of-way permit before construction activities commence on their projects.

Dave Maresh, the City's Right-of-Way and Construction Inspector, is responsible for making sure that improvements are constructed in accordance with approved Plans and City standards, and that proper safety protocols are followed. Job sites are reviewed and inspected regularly and more complicated projects are inspected more frequently. This level of effort is essential in order to verify that contractors are properly constructing improvements within the right-of-way, improvements that will eventually be the responsibility of the City to own and maintain.

Inspections are a necessary function of managing the right-of-way, and are essential for ensuring that safe and proper work is conducted. It is critical that improvements are made to current and proper standards so that when finished and accepted, they will last to the maximum extent possible whereby reducing the possibility of City funded repairs in the future due to poor or improper construction materials and methods.



Routine right-of-way inspections uncover unapproved and illegal work on a City Street. Had this unapproved work not been discovered, the contractor would have constructed an unstable wall.



Dave worked closely with Lakehaven Sewer District to insure that improvements on the Redondo Outfall were constructed properly, and that the Seawall was adequately protected during construction.



Last winter, a developer made an unapproved vertical cut adjacent to Marine View Drive, and significant and immediate shoring work was required. Engineering staff worked extensively with consultants, engineers, architects, geotechnical and structural engineers to develop and engineer a solution to this potential disaster. Dave monitored construction activities to ensure that the highly technical repairs were made properly.



Dave Maresh, is seen here verifying that the new driveway grade matches what is shown in the plans. In this case the driveway exceeded the maximum allowable grade of 14%.

Dave explained this problem to the contractor and offered some possible solutions. Dave is responsible to ensure that improvements in the right-of-way are constructed in accordance to approved Plans.



Development Review – Applying City Standards and Codes

Attention to detail is required to ensure new development meets the City's standards and codes. Close coordination and collaboration with other City departments, utilities, neighboring jurisdictions, and the public is required.

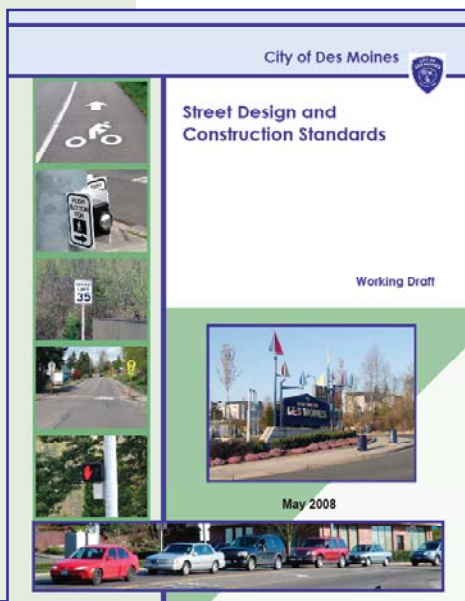
Development review begins with a request from the public. At pre-application meetings our staff explains the City's standards and codes to the applicant. Development review is vital to all cities to sustain and grow and requires a great deal of staff effort to support this function. Several departments participate in development review including transportation, surface water management, planning, building, fire, utilities, and sometimes legal. A careful assessment is done for code compliance, to reduce environmental impacts, and to identify safety considerations and cost saving measures for the developer.

Typical developments include single family homes, commercial buildings, subdivisions and lot line adjustments. Easements, deeds, and street vacations are also handled through development review and often require legal assistance. The City will work with the developer's team of engineers, architects, planners, permit coordinators and others during preliminary and eventually civil review, which can take from one review to several months or years depending on the size of the project, the quality of the submittal, and the applicant's ability to meet the City's standards.



Development review requires correspondence and meetings with the developer and utility companies to expedite projects, problem solve and determine when variances are necessary. Traffic impact analysis studies are done and the required ADA standards are implemented into each design. Traffic impact fees are assessed according to the ITE Trip Generation Manual and updated each year in March.

A thorough study of the bond quantity worksheet is also done to assure the City receives the bond necessary for the project. When feasible, in-lieu fees are calculated and collected instead of constructing frontage improvements. After the development review is completed, inspection and field reviews are done to assure compliance with the plans.



New Street Design and Construction Standards

The City of Des Moines is currently developing New Street Design and Construction Standards, which will replace the 1996 Street Development Standards. The new standards will provide uniform technical requirements to developers, utilities, engineers, and the general public when designing and constructing right-of-way improvements.

Much progress has been made in the development of the new Standards. The Public Safety and Transportation Committee has completed an initial review of the document, and only a few more meetings are necessary before discussions can begin at the City Council. Progress has slowed in the recent months due to other priorities, but hopes are high that the final revisions will be completed soon.

A final draft of the standards will be available soon on the City's web site for review and public comment.

Traffic Engineering

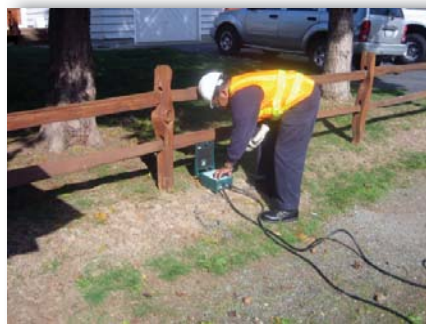
Data You Can Count On

One of the most fundamental services that the Transportation Services Division provides is our Traffic Count Program, yet it is often taken for granted and over looked.

Many people depend on the data that is collected as a result of our traffic counts. People who use this data include real estate appraisers, businesses and corporations, citizens, land use and transportation planners, and traffic engineers.

The most common type of traffic count is a 24-hour total, however, our technicians often compile other valuable traffic data such as truck traffic volumes, vehicle speeds, and peak hour volumes. Traffic counts can also include peak hour turning movement counts that are typically collected at intersections to let us know how well the intersection works.

The Transportation Services Division uses traffic counts to monitor the road system and determine how efficiently it is operating. Transportation staff use traffic **counts to design roads and traffic signals, make signal timing adjustments, and most importantly to monitor compliance with the State's Growth Management Act and the City's Comprehensive Transportation Plan.** It is critical to monitor and ensure that the transportation infrastructure is sufficient and concurrent in accommodating new growth and development.



Ken Thomas, the City's Traffic Technician sets up a speed count on a neighborhood collector in response to a citizen concern.

Collision Analysis

Another fundamental service that the Transportation Services Division provides is improving safety in the City. Our traffic engineers collect traffic accident data from the police reports as well as citizen concerns and investigate this data **looking for correctable accident trends.** The engineers scope potential solutions and look for the key ones to put into place. Many times these solutions can be done within the budget, such as projects that modify the lane channelization or traffic signs, changes to traffic signals, or removing tree limbs and other vegetation. But other times the solutions are more costly and need to be included as part of capital project budgets.

Collision Analysis Improves Safety



Working Together with our Citizens

One of our duties is to work closely with our citizens to resolve traffic safety concerns. Often we will get calls from residents with complaints about sight distance, or other related issues. Here Ken Thomas meets with a citizen to discuss some vegetation that has grown up and needs to be trimmed back to enhance visibility at an intersection.



Staff Aid Accident Victim

Dear Mr. Brewer,

I had a bike accident on Marine View Drive and 260th on the evening of April 2nd, 2008. I wish to thank you, gratefully, for helping me and bringing me home. I have a contusion and a hematoma, otherwise, I'm OK. I intend to notify the City and the owner of the dog that hit me, hoping it will help in the future.

Thanks again,

S.E. Harris, MD

Speed Limits



The safest and most efficient use of streets, roads, and highways is to set a “realistic” speed limit. “Realistic” speed limits conform to the behavior of normal responsible drivers and hence make it easier for the public to comply with. Traffic engineering research has determined that speed limits should be established according to the 85th percentile of free flowing traffic. This means the limit should be set at a speed that 85 percent of people are driving at or below.

Numerous studies have shown that the 85th percentile is the safest possible speed limit. It recognizes that most drivers voluntarily adjust their speed to the total roadway/roadside environment (width, alignment, surface condition, roadside development, pedestrian activity, weather, light conditions).

It is not appropriate to set a limit below the 85th percentile to accommodate factors that are obvious to road users. Drivers are already taking these factors into account with their existing speed decisions.

The Transportation Services Division has been collecting speed data on several roads that may not be correctly posted according to the research of traffic engineering. Engineering staff are reviewing our speed data and the research and are coming up with recommendations. As a result of proper data collection and proper analysis, plans for possible speed limit changes will be presented to the City Council.

Traffic Engineering

Neighborhood Traffic Revision Aims to Improve Safety and Reduce Cut-through Traffic on 8th Avenue South



On August 7th, 2008 the City Council voted to limit traffic operations on 8th Avenue South, between Kent Des Moines Road and South 223rd Street to one-way only in the northbound direction to make the road safer.

This traffic revision was the result of a traffic engineering study on the existing operations and traffic control of 8th Avenue South. Concerns had been raised about traffic volumes, entering sight distance, and speeds in the corridor. In addition, 8th Avenue South lacks a preferred cross section. This makes re-development of the adjacent parcels and construction of frontage improvements such as a sidewalk more difficult.

The traffic engineering study validated many of the concerns. Several alternatives were evaluated and discussed at the August 7th, 2008 Council meeting. In the end, the City Council agreed with staff's recommendation to make this roadway segment one-way northbound.

The traffic revision was implemented on September 16th, 2008. So far, the revision appears to be a success. A follow-up study will be conducted to evaluate how the revision is working.

Coordination Efforts

Given the highly charged attention associated with this traffic revision, Transportation engineering staff spent an enormous amount of effort to coordinate this traffic revision. The efforts helped lead to a smooth transition for motorists and residents encountering the traffic revision.

The issue was discussed at several Public Safety and Transportation Committee meetings, and at least two City Council meetings. Mailers were sent to all property owners and residents within 300 feet of 8th Avenue South. Brandon Carver fielded numerous phone calls from citizen and business interested in the revision.

Staff also coordinated with emergency services, WSDOT, contractors, developers, utilities, suppliers, U.S. Postal Service, and our own Public Works crew.

So far it would appear based on citizen comments and field observations that the modification has been successful.



Additional signs were installed to warn drivers during the first several days of the revision.



There are now delineated shoulders for pedestrians to walk. When you look at these photos, it is hard to imagine that this roadway was a two-way street carrying over 1,100 vehicles per day.



Working with the North Hill Elementary - Coordination Leads to Safety Improvements

During the school district winter break in 2008, the Transportation Services Division was approached by the Principal from the North Hill Elementary school, who requested that a marked cross walk in be installed front of their school. Amy Swartz explained the City's policy on marked crosswalks to the Principal, and worked with the School District to get the needed commitment letter to provide crossing guards at the new cross walk.



Ken Thomas quickly prepared the associated documentation, and the installation was underway. The goal was to have the new cross walk in place before the students returned from their winter break.

The successful effort and coordination with the school district was so successful that it led to another coordinated effort – to apply for a Safe Routes to School Grant for a new sidewalk and other school zone safety improvements on 8th Avenue South adjacent to the North Hill Elementary School. Staff and school district are waiting to hear the results of the highly competitive application process.

Transportation Engineering Policy requires the use of crossing guards, like the one shown in here, at marked cross-walks in school zones. Crossing guards have been shown to dramatically increase the safety of marked school crossings.



School Walk Routes

School districts are required by Washington State regulations to have suggested walk route plans for every elementary school where children walk to school. The plan must cover a one-mile radius from the school and the map must be distributed to all elementary school students and their parents. Pedestrian safety education is a priority for all elementary students who walk to school or not.



Norm Russell oversees the installation of the new durable pavement marking and school signing in conjunction with the school district's commitment to provide crossing guards.

Funding

Level of Effort

Due to the high level of effort necessary to write successful grants, many cities employ a grant writer. Grant writing entails extensive information gathering and research, inter and intra agency communication, writing, editing, critiquing, format compliance, graphics, document compilation, copying, and distribution. The Transportation Services Division uses internal resources for grant writing with help from consultants when their expertise is needed.

Des Moines is located in a commuting corridor and we are a natural resource for connecting mass transit with the airport, transit centers, potential future ferry system, and future light rail. Gaining grant money to build sidewalks along arterial streets and improve our roadways is an asset for our community in improving mobility, safety, and quality of life.

Grant and Loan Applications

Safe Routes to Schools Grant, sidewalks and street improvements along 8th Avenue South between the Samoan Church and South 194th Street, Requested \$245,000

The City of Des Moines is partnering with North Hill Elementary for a Safe Routes to School grant sponsored by the Washington State Department of Transportation. Construction will include curb, gutter, sidewalk, and storm drainage improvements on the east side of 8th Avenue South. Winners will be announced in June 2009.

BRAC, 16th Avenue South North Twin Bridge, Requested \$2,159,285

Funding is needed to make necessary repairs at the North Twin Bridge. BRAC funding will be announced in January 2009.

TIB, Sidewalks and street improvements on South 216th Street from 11th Avenue South to Marine View Drive, Requesting \$1,910,563

The City is requesting additional funding for sidewalks and street improvements along this segment of South 216th Street. Funding will be announced November 21st, 2008.

TIB, Sidewalks and street improvements on South 216th Street from 19th Avenue South to 24th Avenue South, Requesting \$1,553,870

The City is requesting funding to construct sidewalks, curb, gutter, two way left turn lanes, bike lanes, planter strips, drainage improvements, a new traffic signal, and street lighting to benefit the business park, Pacific Highway access and businesses, and residential areas including retirement communities along South 216th Street. Funding will be announced November 21st, 2008.

TIB, Sidewalks and street improvements at the intersection of South 200th Street and Des Moines Memorial Drive South in partnership with the City of SeaTac, Requesting \$679,150

The City of Des Moines is working with the City of SeaTac to provide left turn lanes at all four legs and a right turn lane on the east leg. Sidewalks and bike lanes would be extended, the existing span wire traffic signal would be replaced, lighting would be upgraded, bus stops and curb ramps would be upgraded to ADA standards, overhead utilities relocated, storm drainage upgraded, and pavement widening to accommodate turning radii needed for truck and transit bus traffic. Funding will be announced November 21st, 2008.

Recent Awards and Successes

CDBG design grant award for \$50,000 in 2007, sidewalks and street improvements on South 16th Street from 11th Avenue South to Marine View Drive

The City was awarded \$50,000 in 2007 to design sidewalks, curb, gutter, pavement realignment, two way left turn lanes, bike lanes, drainage improvements, and street lighting to benefit the downtown area and residential areas including retirement communities along South 216th Street.

CDBG construction grant award for \$450,000 in 2008, sidewalks and street improvements on South 16th Street from 11th Avenue South to Marine View Drive

The City will be awarded \$450,000 in 2009 to construct sidewalks, curb, gutter, pavement realignment, two way left turn lanes, bike lanes, drainage improvements, and street lighting to benefit the downtown area and residential areas including retirement communities along South 216th Street.

Public Works Trust Fund Loan for \$1,000,000 for the Des Moines Gateway Project

Design and construction of improved 24th Avenue South and South 216th Street will attract better business opportunities that were not possible before the infrastructure is determined. The street improvements will bring business to Des Moines from the surrounding communities.

Who's Who

BRAC: Bridge Program (WSDOT - State)

CDBG: Community Development Block Grant (HUD funds through King County)

TIB: Transportation Improvement Board (State)

Federal Earmark, Request \$2,000,000

Federal funding is requested for the Des Moines Gateway Transportation Link to provide a five or seven lane roadway from Pacific Highway South to 24th Avenue South including frontage improvements. Notice of funding is in 2009 after the federal budget is signed.

Coordinating with regional committees on project evaluations and selection processes

Staff attend workshops and seminars with funding agencies to prepare a grant that is in compliance with all rules and requirements.

Networking with grant and funding agency staff

City staff keep in touch with funding agency staff to assure that all applications have been received on time and complete. Grants are often awarded to the most prepared applicants so the City takes the opportunity to notify agencies of other grant awards to show the funding commitment to our projects.

Des Moines Considers Creation of Transportation Benefit District

The City Council is currently considering a proposal for the creation of a Transportation Benefit District (TBD), to help pay for necessary transportation preservation and maintenance projects.

A law passed in 2007 (RCW 35.21.225) allows city or county governments in the state of Washington to create local transportation benefit districts and impose a local vehicle registration fee to fund local transportation projects.

Funding dedicated for the preservation and maintenance of the City's transportation infrastructure has been dramatically reduced due to the 2003 loss of King County Local Vehicle License fees (28% revenue reduction) and the ongoing annual decrease in Gas Tax revenues (0.8% annual reduction for past seven years). While dedicated revenues have decreased, the ongoing annual costs to preserve and maintain the City's transportation infrastructure continue to rise leaving the City unable to continue to adequately preserve and maintain the City's transportation infrastructure.

If approved, the funds generated by the Transportation Benefit District would be used for transportation improvements that preserve and maintain the transportation infrastructure of the City, consistent with the requirements of chapter 36.73 RCW. The transportation improvements funded by the district shall preserve and maintain the City's previous investments in the transportation infrastructure, reduce the risk of transportation facility failure, improve safety, continue the cost-effectiveness of the City's infrastructure investments, and continue the optimal performance of the transportation system.

Traffic Impact Fees

Traffic impact fees are collected on new developments and are used to fund street improvements that are related to new development. Impact fee rates are adjusted annually and are based on the construction cost index for the Seattle area as reported in the March issue of the *Engineering News Record*. Fees are based on the number of additional trips a development will add to the City's street network and are calculated using the *Institute of Transportation Engineer's Trip Generation Manual* for the peak PM hour. The current rate per new trip is \$2,940.11.

How would the City use Transportation Benefit District Funds?

The City would use the funds generated by the Transportation Benefit District for transportation improvements that preserve and maintain the transportation infrastructure of the City.

How Does a Transportation Benefit District Work?

Once a local transportation benefit district is set up, the district's board of directors may vote to charge a local vehicle licensing fee due when a vehicle owner buys new tabs.

The transportation benefit district board has the authority to impose a fee of up to \$20 per vehicle without voter approval.

A transportation benefit district may impose a vehicle renewal fee of up to \$100 per vehicle or seek other sources of funding if approved by voters.

Traffic Signs

Federal Standards Force Changes to Traffic Signs

In 2004, the State officially adopted the 2003 Edition of the *Manual on Uniform Traffic Control Devices* (MUTCD). The MUTCD is published by the Federal Highway Administration, and is required to be substantially adopted by all states to provide uniformity in the application of traffic signs, signals, markings, and other traffic control devices nationwide.

In 2006, our transportation engineering staff determined that approximately 25 percent of the City traffic signs were non compliant with the 2003 MUTCD requirements. A 6-year program was initiated in 2007 as part of the Street Maintenance operating program to change out non-compliant traffic signs. The goal of the program is to bring the City's traffic signs into compliance with the MUTCD, which will reduce liability exposure for the City, maintain the City's eligibility



for various Federal Funding Programs, meet WCIA requirements, and provide a standard and uniform traffic sign system that will be consistent with neighboring cities.

We are now nearing the end of the second year of the change out program, and significant progress has been made. The new signs are bigger and brighter making it easier for drivers to see traffic signs at night.

So what happens to all of the signs that are replaced? Signs that were still in good condition and can be reused are re-sheeted and put back into service to keep costs down. Signs that are in poor condition and cannot be reused are recycled along with other damaged or vandalized signs.

School Zone Signing Changes

Currently there are 10 schools (public and private) that front City of Des Moines streets. As a result there are multiple School Zones within these areas. Prior to 2007, the speed zone location, type of sign, and location of signs at some of these locations were inconsistent and did not meet MUTCD standards and state guidelines. Procedures and devices that are not uniform might cause confusion among pedestrians and road users and potentially prompt wrong decisions. To achieve uniformity of traffic control in school areas, comparable traffic situations need to be treated in a consistent manner. A uniform approach to school area traffic controls assures the use of similar controls for similar situations.

Beginning in 2007 and continuing through 2008, Transportation staff has worked to develop documented school traffic control plans, which include school routes and consistent school zones in relation to school crosswalks and/or school property boundaries. The most significant piece of this work has been the installation of proper school zone signage with strong yellow green background color at the correct locations determined by engineering.

Dear Mr. Owen,

We are busy preparing the way to open the doors of St. Philomena School. I am writing to thank you for all your thoughtful planning and efforts to ensure the safety of all my students. We love our new signs and know they represent great care and clarity of focus to help children and cars live together peacefully. I appreciate your wisdom, energy, and effort.

Blessings,

*Sandy Smith, Principal
St. Philomena School*



New Overhead Street Name Signs at City Traffic Signals



As part of the “sign change out” program to meet the requirement of the MUTCD, the City recently had the opportunity to replace the overhead street name signs at the traffic signals located within the 16th Avenue South Improvement Project. The new signs have larger text and brighter sign sheeting to meet the new standards.

These large signs have a significantly brighter retroreflectivity sign sheeting called “visual impact performance” or VIP. These signs were the first in the City to be replaced. Changing out these signs brought a new opportunity – to add a symbol to the street name signs at a very nominal cost. This identification aids in conveying City ownership of its traffic signals as opposed to other signals within the corporate limits of other neighboring cities. This symbol is currently a proposal in the proposed Street Standards currently under review, and will help add a little character to the City’s Street name signs.

The Transportation Services Division continues to combat incidents of citizens putting garage sale signs and other signs on City traffic control devices and support structures. Due to their potential distraction from the message of the affected traffic sign, such postings are expressly prohibited and subject to removal without notice.

NOTICE

Any unauthorized signs placed on City Traffic Control Devices are prohibited and will be removed without notice

RCW 46.61.080
RCW 46.61.075

WCIA Requires City to set up Traffic Sign Inventory

An audit of the Public Works Department was conducted in 2008 by representatives of the Washington Cities Insurance Association (WCIA). The results of the audit were positive, yet there were three findings and Mandatory Compliance Issues that we are addressing.

Using the “best practices” in the Industry will Reduce Costs

Instead of “re-inventing the wheel” our staff are finding out what other agencies are doing to inventory, inspect, and maintain their traffic signs. Recently, our staff had the opportunity to visit the Pierce County Traffic Operations Center, and discuss inventory systems with Rick Butner, Steve Martin, and Mark Young. These highly skilled and professional maintenance personnel lead the way under the direction of the County Traffic Engineer, Jim Ellison. This group offered a lot of good advice, and we may be able to implement parts of the database system that they are using. We also had the opportunity to visit with Ted Schuman from the City of Puyallup. A few years ago, the City of Puyallup implemented a GPS/GIS based sign inventory system, which is similar to the tracking system envisioned for Des Moines.

One of the findings was that we must develop and implement an inventory system for our traffic signs. The Transportation Services Division has been meeting for several weeks now, and working towards the development and implementation of the City’s inventory systems. The database should be completed by the end of November, and testing will take place in December. The data collection process will begin in January and will take several months to complete. When completed, our traffic control specialist will be able to inspect and maintain all of our traffic signs with a high degree of confidence that all signs are up and in good condition. At this point and time, we are estimating that there are between 2,000 and 3,000 traffic signs in the City of Des Moines. At an average cost of over \$100 per location, the value of this resource in the field is estimated at over \$250,000. We must have a better way to inspect and maintain these traffic control devices, not only as a public asset, but to reduce our liability exposure.

Night Time Inspection of Traffic Sign Brightness

Our staff will soon begin a night time sign inspection process required by the MUTCD. Revision 2 of the 2003 Manual on Uniform Traffic Control Devices (MUTCD) was published in the Federal Register on December 21, 2007, and became effective as of January 22, 2008. The final rule provides additional requirements, guidance, clarification, and flexibility in maintaining traffic sign retroreflectivity that is already required by the MUTCD. The City is required to implement a system, whereby the retroreflectivity of traffic signs at night can be certified to meet minimum average thresholds. Once the traffic sign inventory system is completed, we will begin our night time inspection process.

Countdown Pedestrian Signals Are Required

The Manual on Uniform Traffic Control Devices (MUTCD) 2003 edition is the standard for all signs, signals, markings, and other devices used to regulate, warn, or guide traffic on public rights of way. The Federal Highway Administration, who publishes the MUTCD, plans to soon release an updated edition, which will require all pedestrian signals to be a “countdown” style. A countdown display informs pedestrians of the number of seconds remaining in the pedestrian change interval. With countdown signals, pedestrians have additional information provided and less confusion about the “flashing don’t walk” portion of the signal.

Our staff is starting to change out pedestrian signal displays in a limited way. The City currently has “countdown” style pedestrian signal displays at both of our pedestrian-only signals at Wesley Homes at South 216th Street and South 226th Street at Pacific Highway South.

We have updated the pedestrian signals at the largest signalized intersection in the City, Kent-Des Moines Road at Pacific Highway South, which also has the longest pedestrian crossing distances. This updated signal was completed with the Pacific Highway South Redevelopment Project.

City’s Traffic Signal Equipment in Need of Upgrade

A cornerstone of the City’s traffic operations is the traffic signal system. The City contracts with the Washington State Department of Transportation (WSDOT) to conduct regular maintenance checks on all traffic signal and flasher locations to insure that the equipment is in good working order. Recent inspection reports indicate that the signal controller and associated equipment are wearing out. This is sophisticated equipment, and is very costly to repair and replace, but upgrading and replacing older controller equipment is also the key to reliable operations and reduced maintenance calls. The Transportation Services Division is considering the establishment of a traffic signal control replacement fund, similar to the City’s existing office computer/equipment replacement funds, to provide funds to replace traffic signal equipment on a routine schedule.

Des Moines Considers Photo Enforcement for Red Light Running

In March 2008, the Transportation Services Division looked for specific locations where traffic safety could be enhanced if red light running enforcement were to be implemented. The City of Sea-Tac and Federal Way have recently installed this type of enforcement.

The most likely candidate locations for automated enforcement are those intersections with the highest percentage of right-angle collisions when compared to other signalized intersections within the City. The intersection of Pacific Highway South and South 216th Street stands out as having the most potential to improve safety. Although other City intersections may have similar collision rates for right-angle crashes, the overall number of those crashes is relatively low.

It is important to point out that not all right-angle collisions can be attributed to a driver running a red light. Some may have other extenuating circumstances that would not be considered correctible with this type of automated enforcement. We could not find any discernible directional trends from our initial analysis. We will look at other types of intersection where red light running enforcement may be beneficial. The intersection of Pacific Highway South and Kent Des Moines Road has been identified as one of those intersections that needs additional analysis given its volume of traffic. Should the City decide to continue to investigate automated enforcement for red light running, several intersections will be video taped in order to determine red light compliance.



Pedestrian Countdown Display



Traffic Signal maintenance checking timing plan for new cabinet.



Red light photo enforcement

Link Light Rail on the Horizon - Sound Transit 2 Plan



Our Staff are Poised to Respond

Amy Swartz has extensive experience working on light rail systems. She managed the construction of the northeast line section in Dallas and the eastern line segment in Saint Louis. Others have considerable experience working with the rail division of the WSUTC.



Starting January 2008 the KCFD levied a 5.5 cents (per \$1,000 assessed value) property tax in King County to fund service and capital projects for a maximum seven permanent ferry routes. The plan will generate \$18.3 million per year to fund the ferries.

In 2009, Sound Transit will launch light rail service between downtown Seattle and Sea-Tac International Airport. This initial light rail system is projected to carry more than 45,000 daily riders by 2020.

On November 4th, 2008 Puget Sound citizens will vote on a proposal that will make rapid investments to expand regional mass transit to get people where they want to go and cut through rising congestion. The plan will provide an alternative to rising gas prices and greenhouse gas emissions with quick additions of more regional express buses, more commuter trains, and expansion of the regional light rail system. Among other improvements, the Sound Transit 2 Plan proposes a 7-mile light rail extension from the Sea-Tac Airport to Highline Community College and the Redondo/Star Lake area at the south end of Des Moines. The proposed extensions will open in phases with the Highline extension opening in 2020, and the Redondo extension opening in 2023.

Whether the plan is approved this November or not, it seems inevitable that link light rail is destined to come through Des Moines in the near future. When the plan is approved, the City must be ready and able to engage Sound Transit on decisions that will impact our community. The City will need capable and competent staff to be able to review technical analysis, alternatives, and lengthy environmental impact studies to insure that the impacts to our community are properly mitigated.

Des Moines Staff support Metro Route 156 to Des Moines

With Bus Rapid Transit (BRT) coming on Pacific Highway South, and light rail starting service from downtown Seattle to the Sea-Tac Airport in 2009, Metro is looking at its bus service through Des Moines. Metro could eliminate routes 194 and 174, which currently run from Seattle through Des Moines, and then on to Federal Way.

Our transportation staff are in favor of a proposed Metro service change that creates a new Route 156, to link the cities of Des Moines, SeaTac, and Tukwila. Route 156 would serve our citizen's transportation needs by providing a more direct cross-town connection between our downtown and the Sea-Tac Airport Light Rail Stations, Southcenter, and the Tukwila Sounder Station. Should the passenger-only ferry demonstration route start up, Route 156 could be instrumental in connecting access to the southwest part of the county.

Our staff will continue to work with Metro on the new proposal. We are supporting the extension of Route 156 along Marine View Drive to South 227th Street, providing a more complete downtown transit network. If Route 156 is extended, it may require a new bus layover in the southern part of our downtown, significantly enhancing access to the Des Moines Marina, downtown businesses, and multi family housing.

Is Passenger Only Ferry Service coming to Des Moines?

Nearly a century ago a "Mosquito Fleet" of small boats linked the communities that ring Lake Washington and Puget Sound. These vessels provided vital transportation connections. With the advent of automobile travel, passenger ferry service declined. The King County Ferry District (KCFD) was formed in 2007 to save the Vashon Island passenger-only ferry service and support the popular Elliot Bay Water Taxi from West Seattle to downtown.

The KCFD is considering the establishment of a demonstration route in Des Moines. City Transportation staff will continue to work closely with the King County Ferry District to ensure that if a route comes to the Des Moines Marina, the best interests of the citizens of Des Moines will be considered.

Looking Ahead to 2030 – the Comprehensive Transportation Plan Update

A key responsibility of the Transportation Service Division is plan for the future. The TIP is the short term planning document; the Comprehensive Transportation Plan (CTP) is the long range planning document. The CTP is a plan for all modes of transportation - pedestrian, bicycle, vehicle, and transit.

In the Spring we talked with our community stakeholders– including small businesses owners, the community college and school staff, the area seniors, developers, EMS providers, adjacent cities, transit agencies, the Port of Seattle and City Council members. We heard that you have concerns about traffic issues, need better pedestrian and bicycle facilities, and that more transit service is essential.

What have we heard?

Congestion was an issue for nearly everyone interviewed. Getting into and out of Des Moines is one of the primary issues of concern. North/south roadways are slightly less congested than east/west roads, but it is prevalent all day in all directions, especially during commute hours. Transit service is often not available in the evening or on weekends, transit service does not come frequently on many routes, and there are just too many transfers to get to downtown Seattle. Pedestrian/bicycle facilities and connections were issues for many – seniors, transit users, children, bicyclists, and downtown pedestrians. There were concerns about crossing Marine View Drive and Pacific Highway. Parking was raised as an issue. Is there enough parking and is it in the right locations?

What is Next?

Using the land uses for the year 2030, we derived the population and employment expected in 2030. Fehr & Peers/Mirai, our consultant, forecast the likely traffic volumes on the City streets and identified where traffic volumes are expected to grow and where we may find problem intersections. We are also taking a look at where new bike lanes and sidewalks may be needed and where additional transit is needed. We will prepare project cost estimates for all the improvements. Since the City's financial resources are not enough to do all the recommended improvements, we will need to



prioritize them. Once the projects are ranked, they will be put into the Transportation Plan. The resulting Plan will guide the City's decisions on when and where to spend future transportation resources over the next 20 years. An Open House is envisioned for this winter for public comment on the 20-year list of projects and other parts of the plan before the Council adopts the Comprehensive Transportation Plan.

A Look Ahead to 2009

The following is a brief list of some of the highlights to look for from the Transportation Services Division in 2009:

- Repairs to the North Twin Bridge on 16th Avenue South
- Completion of the Comprehensive Transportation Plan Update
- Adoption of the new Street Design and Construction Standards
- Development and Refinement of Standard Operating Procedures
- Implementation of the sign inventory system
- Night-time sign inspections for retroreflectivity
- Continued work on the traffic sign change out program
- A new MUTCD with new mandates, standards, and compliance dates
- Construction of the Des Moines Creek Trail
- Aggressive preventative maintenance program on the City's paved streets